LETTERS TO THE EDITOR

A community-based seroprevalence survey of syphilis in black children

Sir,—Reliable estimates of the prevalence of syphilis are not readily available for most African countries, including South Africa. The available prevalence rates are almost exclusively confined to selected population groups such as attenders of antenatal and sexually transmitted diseases clinics.

Seroprevalence studies of syphilis in black antenatal clinic attenders have reported prevalence rates varying from 13%[1] to 23%[2] while prevalence rates varying from 30%[3] to 35%[4] have been reported in sexually transmitted diseases clinic attenders, a known high risk group. These data, notwithstanding their selection biases, indicate that syphilis is widespread in South Africa, particularly, amongst blacks. However, little is known about the prevalence of syphilis in black children. Van Niekerk *et al*[5] previously reported a 2% prevalence of syphilis amongst schoolchildren in Bloemfontein but no data are available on black children in Natal. We undertook a community-based seroprevalence survey to determine the prevalence of exposure to syphilis in healthy black children in Umlazi, a black township south of Durban.

Four hundred and three children were randomly selected from a larger representative sample of 805 children which was obtained with minimal selection biases for a study[6] conducted in 1985. Six of the selected children had insufficient sera and the remaining 397 sera were tested for syphilis antibodies of the IgG-class using the fluorescent treponemal antibody test (FTA-IgG).

Children who were positive by the FTA-IgG test were tested for the presence of IgM-class antibodies to syphilis using the fluorescent treponemal antibody test (FTA-IgM). Children who were positive by the FTA-IgM test were also tested for the presence of rheumatoid factor. All tests were performed in accordance with the manufacturers instructions.

The mean age was 6 years old and 4 months (range: newborn to 13 years) and 47·1% were males. The FTA-IgG test was positive in 14 children, in whom three were also positive by the FTA-IgM test. The three FTA-IgM test positive children, aged 12 months, 18 months and 7 years and 9 months, were negative for rheumatoid factor. Seven of the children who were only FTA-IgG test positive were below the age of 6 months, suggesting that they are more likely to represent passively acquired maternal antibodies.

The overall prevalence of syphilis antibodies was 3·5% (95% confidence interval (CI) 1·7%–5·3%). Since seven of the 14 positive children are likely to represent maternal antibodies the prevalence of syphilis in healthy black children is 1·8% (CI: 0·5%–3·1%).

None of the children had clinical evidence of syphilis. Of the 3 FTA-IgM test positive children, it is likely that the two younger children represent congenitally acquired syphilis while the oldest child could have acquired syphilis venereally. The widespread use of antibiotics, especially penicillin, in the course of medical care could account for the lack of clinical manifestations in these children. The four children older than 6 months who were only FTA-IgG test positive are likely to represent past or latent syphilis infection.

In conclusion, the prevalence of syphilis is high in healthy urban black children, which highlights the importance of antenatal screening and appropriate treatment for syphilis.

We thank the following for their assistance: R H Bhana, V Singh, N Moodley, J Van den Ende, H M Coovadia and R Thejpal.

YACOOB M COOVADIA
Department of Medical Microbiology, Faculty of Medicine, University of Natal.
SALIM S ABDOOL KARIM
Research Institute for Diseases in a Tropical Environment of the South African Medical Research Council, PO Box 17120, Congella, 4013 Durban, South Africa.

1 Robertson RR, Spector I. Syphilis serology among women attending an antenatal clinic. *S Afr J Sex Transm Dis* 1985;5:18–21.
2 Naicker SN, Moodley J, Van Middelkoop A, Cooper RC. Serological diagnosis of syphilis in pregnancy. *S Afr Med J* 1983;63:536–7.
3 Hoosen AA, Coetzee DK, Van den Ende J. Microbiology of vaginal discharge in patients attending a sexually transmitted diseases clinic in Durban. *Joint National Congress of the Infectious Diseases and Sexually Transmitted Diseases Societies of Southern Africa.* 1987; 14–16 October, Durban.
4 Fehler HG, Duncan MO, Bilgeri YR, Ballard RC. Sexually transmitted diseases amongst urban black women. *S Afr J Sex Transm Dis* 1984;4:48–53.
5 Van Niekerk CH, Van Niekerk LC, Van Den Ende J. Positiewe serologiese toetse vir sifilis by swart laerskoolkinders van Bloemfontein. *S Afr Med J* 1985;67:90–1.
6 Abdool Karim SS, Coovadia HM, Windsor IM, Thejpal R, Van Den Ende J, Fouche A. The prevalence and transmission of hepatitis B virus in urban, rural and institutionalised black children of Natal/KwaZulu, South Africa. *Int J Epidemiol* 1988;17:168–173.

Prevalence of *Chlamydia trachomatis* infection in pregnant women in Zaire

Sir,—*Chlamydia trachomatis* has been recognised as a major cause of non-gonococcal urethritis (NGU), epididymitis and proctitis in men and of mucopurulent cervicitis, endometritis and acute salpingitis in women.[1] In addition, *Chlamydia trachomatis* is a common infectious agent in pregnant women.[2] Depending on the population studied the prevalences have ranged from 2% to 37%. In several African cities such as Fajara (Gambia), Nairobi (Kenya) and Accra (Ghana) prevalences of 6·9%, 10% and 7% respectively have been reported.[3–5] The population we studied consisted of 101 pregnant women, attending the antenatal clinic of l'Hôpital de Kyondo (Zaîre, Africa, June 1988). At their visit in the last term of their gestation specimens were taken for *Chlamydia trachomatis* from the endocervix of the women using a cotton-tipped swab. Immediately after collection a smear was made by rolling the swab over a microscope slide. Then the smear was air-dried and fixed with 0·5 ml methanol and again the slide was air-dried. After storage at 4°C for one month in l'hôpital de Kyondo the slides were sent to the Department of Medical Microbiology, University of Limburg (Maastricht, Holland), where *Chlamydia trachomatis* was detected by using a direct immunofluorescent (IF) staining technique (Pathfinder,